CLAIMS

1. An absorbent insert for packagings, consisting of a top and a bottom covering layer and a core which absorbs aqueous liquids and includes absorbent polymers, characterized in that the absorbent polymers have a $Q_{SAP\ 0.3}$ of at least 20, preferably at least 30, and particularly preferred, at least 40, and that, without addition of biocidal substances, microbial growth is prevented and odor production is suppressed.

2. The absorbent insert according to claim 1, characterized in that the top and bottom covering layers consist of plastic or cellulose films or fabrics or fleeces, and that at least part of the covering layer film is permeable to water or aqueous liquids as a result of perforations.

3. The absorbent insert according to claims 1 and 2, characterized in that the absorbent core consists of a fleece or fabric wherein the polymers absorbing the aqueous liquids are dispersed and optionally fixed.

4. The absorbent insert according to one of claims 1 through 3, characterized in that the absorbent polymers are built up of partially neutralized monomers bearing ethylenically mono-unsaturated acid groups, optionally other monomers copolymerizable therewith, and optionally polymers suitable as graft basis, and crosslinkers.

5. The absorbent insert according to one of claims 1 through 4, characterized in that the monomers bearing unsaturated acid groups are selected from the group of acrylic acid, methacrylic acid, vinylacetic

acid, vinylsulfonic acid, methallylsulfonic acid, and 2-acrylamido-2-methylpropanesulfonic acid.

6. The absorbent insert according to one of claims 1 through 5, characterized in that the absorbent polymerizate contains polymerized therein from 0 to 40 wt.-% of other comonomers from the group of vinylpyrrolidone, hydroxyethyl acrylate and vinylacetamide.

7. The absorbent insert according to one of claims 1 through 6, characterized in that the absorbent polymerizate contains up to 30 wt.-% of water-soluble polymers as graft basis, preferably polysaccharides and/or polyvinyl alcohol.

8. The absorbent insert according to one of claims 1 through 7, characterized in that the absorbent polymers were obtained using a crosslinker combination of a type A crosslinker with at least one additional type B or type C crosslinker, type A consisting of di- and/or triallylamine, type B of (meth)acrylate esters of polyols, and type C of (meth)acrylate esters of alkoxylated (meth)allyl alcohols.

9. The absorbent insert according to claim 8, characterized in that the absorbent polymers were produced using a crosslinker combination consisting of

I. from 0.05 to 0.8 wt.-%, preferably from 0.2 to 0.6 wt.-% type A crosslinker, from 0.05 to 1.4 wt.-%, preferably from 0.1 to 1.0 wt.-% type B crosslinker, and optionally from 0 to 0.5 wt.-% type C crosslinker, or

II. from 0.05 to 0.8 wt.-%, preferably from 0.3 to 0.8 wt.-% type A crosslinker, from 0.05 to 1.5 wt.-%, preferably from 0.4 to 0.9 wt.-% type C crosslinker, and optionally from 0 to 0.5 wt.-% type B crosslinker,

with the proviso that the overall concentration of the crosslinkers is from 0.7 to 2.0 wt.-%, preferably from 0.9 to 1.5 wt.-%, relative to the monomers employed.

10. The absorbent insert according to claim 8, characterized in that the absorbent polymers were produced using a mixture of crosslinkers containing diallylamine and/or triallylamine as type A crosslinker, trimethylolpropane oxethylate (meth)acrylate and/or glycerol oxethylate (meth)acrylate and/or pentaerythritol oxethylate (meth)acrylate and/or polyethylene glycol α,ω-di(meth)acrylate of type B crosslinker, and (meth)allylpolyethylene glycol (meth)acrylate of type C crosslinker, with the proviso that in addition to type A, at least one of type B or C is used in the combination of crosslinkers.

11. The absorbent insert according to one of claims 1 through 10, characterized in that the absorbent polymerizate has been crosslinked at its surface using a post-crosslinker, and optionally said post-crosslinking has been repeated several times.

12. The absorbent insert according to claim 11, characterized in that the absorbent polymerizate has been crosslinked at its surface using a post-crosslinker from the group of polyols, polyepoxides, polyamines, or alkylene carbonates.

13. The absorbent insert according to one of claims 1 through 12, characterized in that the absorbent polymers have a retention of at least 22 g/g, preferably 25 g/g, and particularly preferred, at least 28 g/g.

14. The absorbent insert according to one of claims 1 through 12, characterized in that the absorb-

ent polymers have an absorption against pressure (AAP 0.3) of at least 15 g/g, preferably at least 19 g/g, and particularly preferred, at least 22 g/g.

15. The absorbent insert according to one of claims 1 through 12, characterized in that the absorbent polymers have a solubles ratio of 3.5 at maximum, preferably 2.5 at maximum, and particularly preferred, 1.5 wt.-% at maximum.

16. The absorbent insert according to one of claims 1 through 12, characterized in that the migration values of the absorbent polymers do not exceed 15 mg/g, preferably 10 mg/g, and particularly preferred, 5 mg/g of absorbent insert.

17. A process for the production of an absorbent insert comprising a top and a bottom covering layer and a core which absorbs aqueous liquids and includes absorbent polymers, characterized in that the absorbent polymers used have a $Q_{SAP\ 0.3}$ of at least 20, preferably at least 30, and particularly preferred, at least 40.

18. The process for the production of an absorbent insert according to claim 17, characterized in that the absorbent polymers are built up of crosslinkers and partially neutralized monomers bearing ethylenically mono-unsaturated acid groups, optionally other monomers copolymerizable therewith, and optionally polymers suitable as graft basis.

19. The process for the production of an absorbent insert according to claims 17 through 18, characterized in that the absorbent polymers have been produced using a crosslinker combination of a type A crosslinker with at least one additional type B or type C crosslinker, type A consisting of di- and/or triallylamine, type B

of (meth)acrylate esters of polyols, and type C of (meth)acrylate esters of alkoxylated (meth)allyl alcohols.

20. The process for the production of an absorbent insert according to one of claims 17 through 19, characterized in that the absorbent polymers have been produced using a crosslinker combination consisting of

I. from 0.05 to 0.8 wt.-%, preferably from 0.2 to 0.6 wt.-% type A crosslinker, from 0.05 to 1.4 wt.-%, preferably from 0.1 to 1.0 wt.-% type B crosslinker, and optionally from 0 to 0.5 wt.-% type C crosslinker, or

II. from 0.05 to 0.8 wt.-%, preferably from 0.3 to 0.8 wt.-% type A crosslinker, from 0.05 to 1.5 wt.-%, preferably from 0.4 to 0.9 wt.-% type C crosslinker, and optionally from 0 to 0.5 wt.-% type B crosslinker,

with the proviso that the overall concentration of the crosslinkers is from 0.7 to 2.0 wt.-%, preferably from 0.9 to 1.5 wt.-%, relative to the monomers employed.

21. Use of the absorbent insert according to one of claims 1 through 12 in foodstuff packagings, as ice substitute, and as a leak-proofing means in transport packagings.